UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,463	10/16/2003	Tetsu Takahashi	1614.1367	1888

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EXAMINER
MOTSINGER, SEAN T

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/685,463	TAKAHASHI, TETSU
	Examiner	Art Unit
	SEAN MOTSINGER	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>10/6/2008</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-10,12 and 13</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-10, 12 and 13</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

Response to Applicants Arguments/Amendments

Applicants arguments/amendments filed on 10/6/2008 have been entered and made of

record.

Applicants arguments/amendments have been fully considered but are moot in view of

new grounds of rejection.

Rejections Under 35 U.S.C. 112 First paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 and 12-13 rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention. Claims 1-10 and 12-13. are not enabled by the specification as originally filed.

Acoording to applicants arguments the input of claim 1 is the MPEG format see

Applicants remarks filed on 10/6/2008 page 5 "input into the mpeg encoder includes

data in the MPEG format. In claim 1 there is claimed "A second unit discarding a second

set of frames which lie between two of the first set of frames in the input video

sequence, to cause the encoding unit to skip each second frame and perform

predictive coding of a corresponding one of the first frames immediately preceding the

second frame." This describes taking the input video sequence and encoding the

second set of frames as a "predictive coding of a corresponding one of the first frames

immediately preceding the second frame". This operation is not enabled with respect to

an MPEG input as described, one cannot merely discard the MPEG pictures without

ruining the encoding scheme see applicants specification paragraph 77 as published.

"The encodined data of the fourth picture B inherently cannot be decoded with no

reference to the third picture preceding the fouth picture B". Therefore a normal MPEG

stream could not function be discarding unless as stated in the specification paragraph

77 *"all of the preceding pictures(the first through third pictures are encoded from the*

same picture A". This would not be true unless the MPEG sequence was already

encoded such that " encoding unit to skip each second frame and perform predictive

coding of a corresponding one of the first frames immediately preceding the second

frame." This would mean the applicant was discarding "predictive coding of a

corresponding one of the first frames immediately preceding the second frame" frames

then inserting "predictive coding of a corresponding one of the first frames immediately

preceding the second frame" to end up with the same coding sequence that applicant

started with which makes no sense. The combination of steps of "leaving a first set of

frames to cause encoding unit to perform predictive coding of the first set of frames" and

""predictive coding of a corresponding one of the first frames immediately preceding the

second frame" does not make any sense when the input is an MPEG video stream and

appears to only be relevant to an input of an un-encoded video stream.

Futhermore the section of the specification from page 15 lines 15- page 16 lines

22 which support amended claim 1 is not described in such a way as to enable one of

ordinary skill in the art to perform the invention. According to applicants specification an

"I picture is always inserted as the head-end picture for each of the plurality of GOP."

(see page 13 lines 25-30) In the proccess of page 15 and 16 only "head end" video

packs are counted by the counter (see page 15 lines 15-25), video packs. since there is

only one head end video pack per GOP the counter would increment from -1 to 0, and

never incremented again all the way until the tail end video pack in fact it may even be

set to negative one at some point. In short this makes no sense and will not result in the

parameter B being "the interval at which the pictures are left. Furthermore it is unclear

how counting head end video packs would result in the function applicant describes it

appears that no frames would be skipped each GOP because the counter would always

read 1 after the head end video pack until the end of the GOP because each GOP has

a head end video pack.

Furthermore page 15 states "In the following description, the term "frame" is used

in the same meaning as the picture (or video pack)." But the claim uses the language

"the first set of frames and the second set of frames include a plurality of video packs.

This makes no sense because if a frame and video pack are the same thing a frame

what does this limitation even mean.

Furthremore the limiataion "the head information is read to determine weather a

currently read video pack is a head end video pack in the first set of frames or the

second set of frames" makes no sense. The specification does not define how reading

the header information determines weather the currently read video pack the head-end

video pack is a head end video pack in the first set of frames or the second set of

frames. How does the header contain this information on which set of frames it is in.

Furthmore it is unclear how the second set of frames could include a head end

video pack since the specification defines these as I pictures and the specification

describes the second set of frames as P frames (which also makes no sense because it

is unclear how claim 1 would operate if the input was an MPEG steam) .

Claim 2 and 7 state: "…the second frames which are discarded are predictive-coded

pictures contained in the input video sequence." However in applicants claims these

frames to be head end video packs (I-frames). It is unclear how a P frame could be an I*

frame.

Re claim 12 claim 12 makes no sense how determining if the frame is a head

end video pack would help in the leaving function. The section of the specification from

page 15 lines 15- page 16 lines 22 which support claim 12 is not described in such a

way as to enable one of ordinary skill in the art to perform the invention. According to

applicants specification an "I picture is always inserted as the head-end picture for each

of the plurality of GOP." In the proccess of page 15 and 16 only "head end" video packs

are counted by the counter (see page 15 lines 15-25), video packs. since there is only

one head end video pack per GOP the counter would increment from -1 to 0, and never

incremented again all the way until the tail end video pack in fact it may even be set to

negative one at some point. In short this makes no sense and will not result in the

parameter B being "the interval at which the pictures are left. Furthermore it is unclear

how counting head end video packs would result in the function applicant describes it

appears that no frames would be skipped each GOP because the counter would always

read 1 after the head end video pack until the end of the GOP and the tail video pack.

Claim 13 as amended also has the same problems as claim 1 see rejection

above.

Claim 13 as amended also makes no sense how can *each picture have a*

plurality of frames? or what does it mean plurality of picture be a "head end set of

pictures". The specification does not describe a "head end set of pictures" nor is it

clear what this even means.

Furthermore claim 13 claim reducing a number of frames to be decoded in the

decoder. The examiner understands this to mean that frame rate of the output is slower

then the input wherein there are no dummy, repeating frames in the output but a fewer

number of frames. However this does not appear to match what applicant has described

in his disclosure. On page 13 lines 25-37 applicant describes "As the encoding of the

pictures skipped is not preformed the encoding of a corresponding one of the pictures

left which immediately precedes the skipped picture is preformed instead." To the

examiner this suggests that a second encoding of preceding frame is preformed

"instead" of encoding the skipped frame. Furthermore page 14 lines 1-12 also seem to

support examiners conclusion i.e. "performs the encoding of the same picture". This

does not enable reducing the number of frames to be decoded since the number of

frames will be the same.

Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession

of the claimed invention.

        Claim 13 as amended also claims *each picture has a plurality of frames* this is

not disclosed in the specification. The specification does not describe a "head end set of

pictures" nor is it clear what this even means.

Claim 13 reducing a number of frames to be decoded in the decoder. The examiner understands this to mean that frame rate of the output is slower then the input wherein there are no dummy, repeating frames in the output but a fewer number of frames. However this does not appear to match what applicant has described in his disclosure. On page 13 lines 25-37 applicant describes "As the encoding of the pictures skipped is not preformed the encoding of a corresponding one of the pictures left which immediately precedes the skipped picture is preformed instead." To the examiner this suggests that a second encoding of preceding frame is preformed "instead" of encoding the skipped frame. Furthermore page 14 lines 1-12 also seem to support examiners conclusion i.e. "performs the encoding of the same picture". Applicant's amendment and argument seem to reflect a different understanding of this language, the examiner is unclear on applicant's interpretation, and the examiner does not believe that said section is sufficiently clear to convey possession or enablement of said invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-10 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Acoording to applicants arguments the input of claim 1 (and 13) is the MPEG

format see Applicants remarks filed on 10/6/2008 page 5 "input into the mpeg encoder

includes data in the MPEG format. In claim 1 there is claimed "A second unit discarding

a second set of frames which lie between two of the first set of frames in the input video

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""predictive coding of a corresponding one of the first frames immediately preceding the

second frame" does not make any sense when the input is an MPEG video stream and

appears to only be relevant to an input of an un-encoded video stream.

Furthermore regarding claim 1 page 15 states "In the following description, the

term "frame" is used in the same meaning as the picture (or video pack)." But the claim

uses the language "the first set of frames and the second set of frames include a

plurality of video packs. This makes no sense because if a frame and video pack are

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Re claim 12 claim 12 makes no sense how determining if the frame is a head end video pack would help in the leaving function. The section of the specification from page 15 lines 15- page 16 lines 22 which support claim 12 is not described in such a way as to enable one of ordinary skill in the art to perform the invention. According to applicants specification an "I picture is always inserted as the head-end picture for each of the plurality of GOP." In the proccess of page 15 and 16 only "head end" video packs are counted by the counter (see page 15 lines 15-25), video packs. since there is only one head end video pack per GOP the counter would increment from -1 to 0, and never incremented again all the way until the tail end video pack in fact it may even be set to negative one at some point. In short this makes no sense and will not result in the parameter B being "the interval at which the pictures are left. Furthermore it is unclear how counting head end video packs would result in the function applicant describes it

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"instead" of encoding the skipped frame. Furthermore page 14 lines 1-12 also seem to

support examiners conclusion i.e. "performs the encoding of the same picture". This

does not enable reducing the number

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN MOTSINGER whose telephone number is (571)270-1237. The examiner can normally be reached on 9-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571)272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bhavesh M Mehta/
Supervisory Patent Examiner, Art Unit 2624

Motsinger
3/13/2009